PS VALUE GUIDE HOLDING TANK CHEMICALS ROUND 2

MANUFACTURER	BACTANK T3	RID-X	ZOAL	RARITAN		FORESPAR	YARA CHEMICAL	HAPPY CAMPER ✔
NAME	Bactank T3 ★ $	Rid-X	No-flex ✔	KO (Kills Odors) ✔	CP (Cleans Potties) ✔	Refresh ✔	Odorlos ✔	Happy Camper ✔
TYPE	Powder	Powder/ liquid	Powder	Liquid	Liquid	Liquid	Powder, 10-pack	Powder
PRICE	$10.95	$8.50	$8.50	$13.49	$12.69	$16.99	$18.99	$29
SIZE	6 oz.	9.8 oz.	16.8 oz.	22 oz.	22 oz.	16 oz.	40 oz.	40 oz.
COST PER GAL.	2 cents	2 cents	4 cents	6 cents	6 cents	4 cents	5 cents	3 cents
TOTAL COST / YEAR*	$5.48	$5.20	$11.76	$18.40	$17.30	$12.74	$14.24	$8.70
TYPE	Bacterial spores	Bacterial spores	Nutrient + oxygen source	Bacterial	Bacterial	Not available	Nutrient + oxygen source	Bacteria and mineral
CLEANERS	NA	NA	Peroxyhydrate & surfactants	NA	NA	NA	Nitrate compounds	NA
LIVE BACTERIA / CULTURE RESULTS	Yes	Yes	No	No	Yes	No	No	No
ODOR	None	None	None	Mild, fresh scent	Mild, fresh scent	Mild, fresh scent	None	None
TEST RESULTS								
HYDROGEN SULFIDE	0-2 ppm	0-2 ppm	0-2 ppm	0-2 ppm	No tested	0-2 ppm	0-2 ppm	0-2 ppm
ODOR (1-8, 8=UNTREATED)	2	6	3	3	field trial as cleaner only	3	2.5	3.5
SOLIDS BREAKDOWN	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

★ Best Choice $ Budget Buy ✔ Recommended *12 x 25 gal. pumpout

OBSERVATIONS

Some of the products worked faster than others, but don't expect overnight results. All of the products seemed to perform much better in this round, whether environmental factors came into play, we're not sure. We had no products registering the high hydrogen sulfide numbers that we saw in the February 2012 report. As for odor control, this group of products also seemed to go easier on the perfumes and dyes that bothered testers in the first round.

As we mentioned in Round 1, temperature makes a difference. This round of testing took place in the late spring, when temperatures had not yet reached the summer highs ripe for odors. Fall and winter sailors, and those in cold-water areas (Maine, Pacific Northwest), may find that chemicals that claim to use live bacteria will be less effective on their boats. Ventilation also seemed to be less effective during the cooler-season testing, but smell was less noticeable then, too. Generally, you'll see less odor problems in true winter weather.

Again, all of the products claiming to contain live bacterial cultures tested negative for bacteria. Control inoculations flourished, however, quickly producing both bacteria and fungus. But, we are not certain this is too important. What was clear from our previous test was that chemicals that add oxygen, along with better venting, can materially affect odor in less than 12 hours, far quicker than an aerobic culture could blossom. Finally, it is important to avoid adding toxic chemicals—formaldehyde and related compounds, and bleach being the most common holding-tank offenders. These destroy the biomass that promotes a healthy holding tank.

FINDINGS

Perhaps more than any other element in the sanitation system, the health of the holding tank can have a great effect on odors. In many cases, the source of the odor is not the waste, but the water. Like most ocean sailors, we used seawater flush for our testing. Seawater is known to contribute to odors. Many newer systems use freshwater, and very little of it. Others use several pints per flush. Temperatures vary, and ventilation varies.

Individual tanks will be subject to a number of variables that our test tanks were not. To compensate for this, we tested all the chemicals more than once under different conditions. Those that showed the most merit in early testing underwent additional testing. All of the recommended products did well, and we encourage you to try each and see which one works best for your special circumstances.

Test control: Odorlos